



(19)

Europäisches Patentamt

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(11)

EP 0 993 162 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
20.08.2003 Bulletin 2003/34(51) Int Cl.7: H04L 29/06, H04L 12/22,
H04L 12/46(43) Date of publication A2:
12.04.2000 Bulletin 2000/15

(21) Application number: 99119103.2

(22) Date of filing: 04.10.1999

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: 05.10.1998 US 166318

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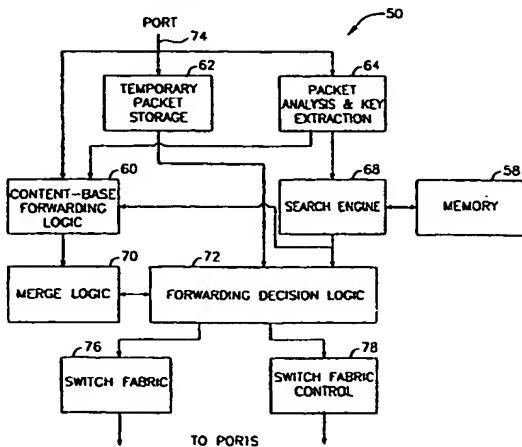
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(54) Content-based forwarding/filtering in a network switching device

(57) A method of processing frames received at a sending port of a switching device for communication to a destination port includes storing in the switching device an offset value, a comparator value, and an expectant value; comparing information located at a position in a frame determined by the offset value with the comparator value to obtain an outcome; and processing the frame with the outcome. Processing the frame may include communicating the frame to a destination port or setting the priority of the frame. The offset and comparator values may be part of a filter that also includes an anchor value from which the offset value is measured and a mask value that masks the frame information before comparison with the comparator value. Where there are a multiple of filters in the switching device, the method may include combining the filter outcomes to obtain a filter group outcome; and processing the frame with the group outcome. Combining the filter outcomes may include logically combining their outcomes. The method may also include merging the outcome with frame forwarding information from another source; and processing the frame with the merged outcome. Apparatus in accordance with the invention practices these methods.

FIG.3



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EUROPEAN SEARCH REPORT

Application Number

EP 99 11 9103

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	US 5 790 554 A (FERGUSON EARL ET AL) 4 August 1998 (1998-08-04) * claims 1,2 * * column 3, line 9 - column 4, line 42 * * column 6, line 47 - column 9, line 52 *	1,2,4,5, 7,8, 10-12, 15-19	H04L29/06 H04L12/22 H04L12/46
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The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
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CATEGORY OF CITED DOCUMENTS			
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EP 99 11 9103

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